Denver Architecture and Deployment Workshop

Lee Simmons

* The Architecture looked Aok@ at a top level to a predominately technical audiance. There was basic agreement from the audiance with the architecture documentation and architecture depictions. The architecture presentations are improving. The architecture is understandable. The architecture does a good job targeting rural needs. The Aarchitecture is a ATool@ for deployment, not a selling of ITS Deployment

* The architecture will support evolutionary deployment.

* Use the architecture briefing and theory of operations with Suppliers and Integrators of ITS systems.

* With respect to outreach and implementation of the architecture the following was observed:

    A better summary of the needs to deploy ITS is needed. The Benefits of ITS need to be shown to reinforce the outreach message. Included in this should be discriptions of levels of performance (market packages at multiple levels). Whenever possible examples of benefits derived from ITS research/OPTEST (FOT) should be cited as proven examples of benefits. A What if@ benefits could be discussed (i.e. Northridge earthquake example).

    The architecture is not a Asilver bullet@ and thus cannot be used directly in selling deployment. The core infrastructure message, benefits, a tie to the architecture, and policy implications at a local level should be the focus of deployment outreach. What is in it for me? (local folks) is key. Need to address a APhilosophy of Investment@ for ITS. (JM)

* How do we sell ITS: (Architecture is just a tool to do deployment well. Don't use architecture)

Outreach: * Need to brief ITS benefits of the Core Infrastructure.
    * Need to address where ITS funding will come from. What is Federal funding contribution? What's in it for me? What Federal Funding guidlines are there? Discuss Federal Aid eligibility requirements with respect to ITS.
    * Need to report and show how A early deployment@ studies have helped with deployment planning.
    * Use architecture Briefing and theory of operations with ASuppliers and Integrators@ of ITS systems.
    * Discuss the Core Infrastructure sub-systems : Regular Traveler Information Center, Traffic Signal Control System, Freeway Management System, Transit Management System, Incident Management System, Electronic Fee Payment, Electronic Toll Collection System. (For system suppliers and integrators architecture flow diagrams mapped to the Core Infrastructure sub-systems would be useful along with a better insight into market packages (break into seven mimi-architectures)). A Core infrastructure/System Architecture relationship is

important.
* Show ITS Benefits (based on MOE's). Use FOT benefits as proof that ITS works. Present basis for how benefits were measured. (Use $ and cents approach)
* Use architecture Briefing and theory of operations with Suppliers and Integrators of ITS systems.
* Use architecture Briefing and theory of operations with Suppliers and Integrators   of ITS systems.
* Address legacy systems of existing ITS deployments.
* Explain the relationship with existing communications (i.e. NII, Cellular)

* Maintainability of the architecture needs to be addressed. Stakeholders need to be involved or have a voice in the process. Need to involve the stakeholders and Acommunicate the changes@.

* The potential deployers of ITS need implementation guidance. They need deploymentscenarioss understandable at the local level. Standards are important to them, R&D/FOT proven standards results are important.

Look into using MITRE Benefits Paper (Assessment of ITS Benefits-Early Results are important).

* A ADeployment Document is critical@: encourage national interoperability, presenteconomiess of scale, present the Ahow@, provide detains, address legal aspects and force funding.

* With respect to architecture, other remaining questions that need further understanding:

- How can architecture products be used?
- Need to address outreach to Travelers, Operators, and Elected Officials (individual presentations in outreach recommended.
- Transit needs more in-depth standards then architecture will provide. They need to go within the physical block diagrams of the architecture teams and identify where standards need to be set, say within the Transit Management Center, not just those dealing with the communications to/from a transit management center.
- Need for a AMap Data Base@ standard.
- Need to look at roadway/side terminators/flows more thoroughly.
- Need better description of traffic control functions.
- Missing Elements - Probe Data directly to TMC, Enforcement Terminator, and TMC to weather link.
- Replace to term Asurveillance@.
- Who owns the architecture (FHWA)?
- How do we plan to explain a region wide TMC political arrangement.(Global Plan)
- Need to identify technical choices in architecture.
- What is compatibility with the National architecture?

* From a CVO perspective, standards are holding up deployment. CVO needs strategic deployment' planning and funding.

* Need to address in-vehicle electronics: Standard Data Bus, Vehicle Database and operating system (Not included in architecture effort).

* Some deployment issues. May need answers or ITS national position:

    Wireless cost
    Location referencing
    Data collection infrastructure definition
    Data sharing and cooperation versus jurisdictional fragmentation
    Information quality (truth and labeling)
    Long term cost of devices
    National leadership (funding/policy/direction)
    Connection to telecommunication and multimedia evolution
    Equity